

IN THE CLAIMS

1. – 17. (canceled)

18. (previously presented) A wireless-communication apparatus comprising a feed antenna element, a plurality of no-feed antenna elements, and a plurality of variable reactance units respectively connected to the plurality of no-feed antenna elements, and controlling directivity of an antenna by adjusting the plurality of variable reactance units, comprising:

an adjustment unit performing perturbation control so that each period to temporarily change reactance of each of the plurality of variable reactance units is shorter than a period in which the perturbation control is not performed for any of the plurality of variable reactance units,

wherein the wireless-communication apparatus controls the directivity of the antenna on the basis of received signals respectively received in the period in which the perturbation control is not performed for any of the plurality of variable reactance units and a period in which the perturbation control provides perturbation.

19. (previously presented) The wireless-communication apparatus according to claim 18, wherein

the period in which the perturbation control is not performed for any of the plurality of variable reactance units corresponds to one symbol time.

20. (previously presented) The wireless-communication apparatus according to claim 18, wherein

time required to provide perturbation in turn for all of the plurality of variable reactance units falls within one symbol time.

21. **(new)** A wireless-communication method implemented in an apparatus comprising a feed antenna element, a plurality of no-feed antenna elements, and a plurality of variable reactance units respectively connected to the plurality of no-feed antenna elements, and controlling directivity of an antenna by adjusting the plurality of variable reactance units, said method comprising:

performing perturbation control so that each period to temporarily change reactance of each of the plurality of variable reactance units is shorter than a period in which the perturbation control is not performed for any of the plurality of variable reactance units,

wherein the apparatus controls the directivity of the antenna on the basis of received signals respectively received in the period in which the perturbation control is not performed for any of the plurality of variable reactance units and a period in which the perturbation control provides perturbation.

22. **(new)** The wireless-communication method according to claim 21, wherein the period in which the perturbation control is not performed for any of the plurality of variable reactance units corresponds to one symbol time.

23. **(new)** The wireless-communication method according to claim 21, wherein time required to provide perturbation in turn for all of the plurality of variable reactance units falls within one symbol time.